CLAIMS

1. A modifier for a polyester resin, comprising an amorphous polyester resin (I), and a reactive compound (II) containing two or more glycidyl groups and/or isocyanate groups per one molecule and having a weight average molecular weight of not less than 200 and not more than 500 thousands.

2. The modifier for a polyester resin according to claim 1, wherein the amorphous polyester resin (I) contains aromatic dicarboxylic acid of a carbon number of 8 to 14 and aliphatic or alicyclic glycol of a carbon number of 2 to 10 at 50 mole % or more of an acid component and a glycol component, respectively.

3. The modifier for a polyester resin according to claim 2, wherein the aromatic dicarboxylic acid of a carbon number of 8 to 14 is terephthalic acid and/or isophthalic acid.

4. The modifier for a polyester resin according to claim 2, wherein the aliphatic or alicyclic glycol of a carbon number of 2 to 10 is at least one kind or more selected from the group consisting of ethylene glycol, diethylene glycol, neopentyl glycol, 1,4-cyclohexanedimethanol, 1,2-propanediol, 1,3-propanediol and 2-methyl-1,3-propanediol.

5. The modifier for a polyester resin according to claim 1, wherein the reactive compound (II) is a copolymer comprising (X) 20 to 99% by weight of vinyl aromatic monomer, (Y) 1 to 80% by weight of hydroxyalkyl (meth)acrylate or glycidylalkyl (meth) acrylate, and (Z) 0 to 79% by weight of alkyl (meth) acrylate.

6. The modifier for a polyester resin according to claim 1, wherein the amorphous polyester resin (I) contains a polyfunctional compound unit having three or

more carboxyl groups and/or hydroxyl groups as a monomer component at 0.001 to 5 mole % of an acid component and/or a glycol component, respectively.

7. A polyester resin composition, comprising an amorphous polyester resin (I), a reactive compound (II) containing two or more glycidyl groups and/or isocyanate groups per one molecule and having a weight average molecular weight of not less than 200 and not more than 500 thousands, and an amorphous polyester resin (III).

8. The polyester resin composition according to claim 7, wherein the amorphous polyester resin (I) contains aromatic dicarboxylic acid of a carbon number of 8 to 14, and aliphatic or alicyclic glycol of a carbon number of 2 to 10 at 50 mole % or more of an acid component and a glycol component, respectively.

9. The polyester resin composition according to claim 8, wherein the aromatic dicarboxylic acid of a carbon number of 8 to 14 is terephthalic acid and/or isophthalic acid.

10. The polyester resin composition according to claim 8, wherein the aliphatic or alicyclic glycol of a carbon number of 2 to 10 is at least one kind or more selected from the group consisting of ethylene glycol, diethylene glycol, neopentyl glycol, 1,4-cyclohexanedimethanol, 1,2-propanediol, 1,3-propanediol and 2-methyl-1,3-propanediol.

11. The polyester resin composition according to claim 7, wherein the reactive compound (II) is a copolymer comprising (X) 20 to 99% by weight of vinyl aromatic monomer, (Y) 1 to 80% by weight of hydroxyalkyl (meth) acrylate or glycidylalkyl (meth) acrylate, and (Z) 0 to 79% by weight of alkyl (meth) acrylate.

12. The polyester resin composition according to claim 7, wherein the

amorphous polyester resin (I) contains a polyfunctional compound unit having three or more carboxyl groups and/or hydroxyl groups as a monomer component at 0.001 to 5 mole % of an acid component and/or a glycol component, respectively.

13. The polyester resin composition according to claim 7, wherein the amorphous polyester resin (III) contains aromatic dicarboxylic acid of a carbon number of 8 to 14, and aliphatic or alicyclic glycol of a carbon number of 2 to 10 at 50 mole % or more of an acid component and a glycol component, respectively.

14. The polyester resin component according to claim 13, wherein the aromatic dicarboxylic acid of a carbon number of 8 to 14 is terephthalic acid and/or isophthalic acid.

15. The polyester resin composition according to claim 13, wherein the aliphatic or alicyclic glycol of a carbon number of 2 to 10 is at least one kind or more selected from the group consisting of ethylene glycol, diethylene glycol, neopentyl glycol, 1,4-cyclohexanedimethanol, 1,2-propanediol, 1,3-propanediol and 2-methyl-1,3-propanediol.

16. The polyester resin composition according to claim 7, wherein the amorphous polyester resin (III) contains a polyfunctional compound unit having three or more carboxyl groups and/or hydroxyl groups as a monomer component at 0.001 to 5 mole % of an acid component and/or a glycol component, respectively.

17. A polyester resin composition, comprising an amorphous polyester resin (I), a reactive compound (II) containing two or more glycidyl groups and/or isocyanate groups per one molecule and having a weight average molecular weight of not less than 200 and not more than 500 thousands, and a crystalline polyester resin (IV).

18. The polyester resin composition according to claim 17, wherein the amorphous polyester resin (I) contains aromatic dicarboxylic acid of a carbon number of 8 to 14 and aliphatic or alicyclic glycol of a carbon number of 2 to 10 at 50 mole % or more of an acid component and a glycol component, respectively.

19. The polyester resin composition according to claim 18, wherein the aromatic dicarboxylic acid of a carbon number of 8 to 14 is terephthalic acid and/or isophthalic acid.

20. The polyester resin composition according to claim 18, wherein the aliphatic or alicyclic glycol of a carbon number of 2 to 10 is at least one kind or more selected from a group consisting of ethylene glycol, diethylene glycol, neopentyl glycol, 1,4-cyclohexanedimethanol, 1,2-propanediol, 1,3-propanediol and 2-methyl-1,3-propanediol.

21. The polyester resin composition according to claim 17, wherein the reactive compound (II) is a copolymer comprising (X) 20 to 99% by weight of vinyl aromatic monomer, (Y) 1 to 80% by weight of hydroxyalkyl (meth) acrylate or glycidylalkyl (meth) acrylate and (Z) 0 to 79% by weight of alkyl (meth) acrylate.

22. The polyester resin composition according to claim 17, wherein the amorphous polyester resin (I) contains a polyfunctional compound unit having three or more carboxyl groups and/or hydroxy groups as a monomer component at 0.001 to 5 mol % of an acid component and/or a glycol component, respectively.

23. The polyester resin composition according to claim 17, wherein the crystalline polyester resin (IV) is polyethylene terephthalate, polybutyrene terephthalate

or polylactic acid.

24. The polyester resin composition according to claim 17, wherein the crystalline polyester resin (IV) is reproduced polyethylene terephthalate.

25. A process for producing a molded article, mixing a modifier comprising an amorphous polyester resin (I), and a reactive compound (II) containing two or more glycidyl groups and/or isocyanate groups per one molecule and having a weight average molecular weight of not less than 200 and not more than 500 thousands into an amorphous polyester (III) and/or a crystalline polyester resin (IV), followed by melt molding.

26. The process for producing a molded article according to claim 25, wherein the amorphous polyester resin (I) contains aromatic dicarboxylic acid of a carbon number of 8 to 14, and aliphatic or alicyclic glycol of a carbon number of 2 to 10 at 50 mole % or more of an acid component and a glycol component, respectively.

27. The process for producing a molded article according to claim 26, wherein the aromatic dicarboxylic acid of a carbon number of 8 to 14 is terephthalic acid and/or isophthalic acid.

28. The process for producing a molded article according to claim 26, wherein the aliphatic or alicyclic glycol of a carbon number of 2 to 10 is at least one kind or more selected from a group consisting of ethylene glycol, diethylene glycol, neopentyl glycol, 1,4-cyclohexanedimethanol, 1,2-propanediol, 1,3-propanediol and 2-methyl-1,3-propanediol.

29. The process for producing a molded article according to claim 25, wherein

the reactive compound (II) is a copolymer comprising (X) 20 to 99% by weight of vinyl aromatic monomer, (Y) 1 to 80% by weight of hydroxyalkyl (meth) acrylate or glycidylalkyl (meth) acrylate, and (Z) 0 to 79% by weight of alkyl (meth) acrylate.

30. The process for producing a molded article according to claim 25, wherein the amorphous polyester resin (I) contains a polyfunctional compound unit having three or more carboxyl groups and/or hydroxy groups as a monomer component at 0.001 to 5 mole % of an acid component and/or a glycol component, respectively.

31. The process for producing a molded article according to claim 25, wherein the amorphous polyester resin (III) contains aromatic dicarboxylic acid of a carbon number of 8 to 14 and aliphatic or alicyclic glycol of a carbon number of 2 to 10 at 50 mole % or more of an acid component and a glycol component, respectively.

32. The process for producing a molded article according to claim 31, wherein the aromatic dicarboxylic acid of a carbon number of 8 to 14 is terephthalic acid and/or isophthalic acid.

33. The process for producing a molded article according to claim 31, wherein the aliphatic or alicyclic glycol of a carbon number of 2 to 10 is at least one kind or more selected from the group consisting of ethylene glycol, diethylene glycol, neopentyl glycol, 1,4-cyclohexanedimethanol, 1,2-propanediol, 1,3-propanediol and 2-methyl-1,3-propanediol.

34. The process for producing a molded article according to claim 25, wherein the amorphous polyester resin (III) contains a polyfunctional compound unit having three or more carboxyl groups and/or hydroxyl groups as a monomer component at 0.001 to 5 mole % of an acid component and/or a glycol component of a polyester,

respectively.

35. The process for producing a molded article according to claim 25, wherein the crystalline polyester resin (IV) is polyethylene terephthalate (PET), polybutyrene terephthalate (PBT) or polylactic acid.

36. The process for producing a molded article according to claim 25, wherein the crystalline polyester resin (IV) is reproduced polyethylene terephthalate.